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# A Standard Dietary for an Orphanage

(SECOND EDITION)

Written for the  
State Board of Charities and Corrections

by

DR. ADELE S. JAFFA

Lecturer in Dietetics at the University of California

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## FOREWORD.

In considering the question of what constitutes a standard diet for the *children* of an *orphanage*, the first and most important thing to do is to forget that they are orphans, and the second is to remember it with renewed intensity. The apparent inconsistency in these directions can be easily explained, especially if the explanation is prefaced by the following definition.

A *standard dietary* is one which provides for *every fundamental need* of the body, which makes for good health, full development and best efficiency, and which does this at the least possible cost.

The *fundamental food needs* of children are *the same* regardless of where they happen to eat. It takes just as much material to "grow" the body of one little child as it does that of another little child, regardless of the father's earning capacity, or whether indeed there be a father. It takes a definite amount of coal to run an engine, regardless of who pays for it. That some engines go on less and do less work—and others are coaled beyond their capacity and bring disaster to their owners, only emphasize the law.

It is readily seen, therefore, that in considering the *proper feeding* of children, from the modern point of view, it is both unnecessary and ill-advised to hamper the mind with an ever present consciousness of family relations or lack of them. In considering the *kind, amount, and variety* of food required, the only appropriate and helpful label is one which points to some definite physical conditions which may modify the general need, as: "a diet for babies of two years"; "for children of ten years"; "for adolescents"; "for under-nourished children," etc.

When, later on, however, the methods of preparing, cooking, and serving these foods are considered, it then becomes important to add the label: "For a *large group*" for in these phases of the subject the problems vary with the size of the group.

And still later, when considering the inevitable question of cost, we must once more remember with *emphasis* that the children of this particular large group *are orphans*, and that as such they are the responsibility of the community and that the community not only *can* afford to

feed its children properly, but that it can *not* afford *not to*. If in the common equality of children, there is one class who have greater need than others of sound constitutions, of fine physical development, of resistance to disease, it is those children who must depend for their livelihood and success entirely upon their own efforts, and that at an early age. From the selfish as well as from the altruistic point of view, the community can not afford to allow "dependent children" to grow up into anything short of their very best possibilities. The money which it is necessary to spend in order to accomplish this result is in every sense a good investment.



# A STANDARD DIETARY FOR AN ORPHANAGE.

(SECOND EDITION)

## The Principles of Dietary Construction.

It is important that those who have charge of the dietary of any group of people should have an intelligent idea of the principles which underlie the best arrangement and combinations of foods; otherwise apparently small changes and substitutions might seriously interfere with some important principle. As a dietary is concerned with many phases of the food question, it might well be discussed under four general heads or topics, *i. e.*:

- I. The nutritive phase which relates to "food values"; "the balanced diet," etc.
- II. The hygienic phase which deals with digestibility, proper combinations, methods of cooking, etc.
- III. The esthetic phase which deals with the appearance, flavor and general attractiveness.
- IV. The economic phase which deals with cost and value.

### I. The Nutritive Phase of a Dietary.

Were the human machine like a mechanical device, the term "*nutritive value*" would refer only to the amount of fuel which it consumes in the day. But the human machine *grows*, and therefore requires *material* both to build new tissue and to replace that which is broken down in the wear and tear of living. The nutritive value of a dietary means therefore, the amounts both of *fuel* and of *building* material which the daily food supplies to the body.

How are these values estimated?

All foods of whatever kind may be divided into simple classes and then into sub-classes according to the ingredients which they contain. Because a food is placed in a particular class it does *not* mean that it contains *only* material for which that class is named, but that it contains that particular material in *larger proportion* than any other. Thus in the table below the common foods are placed under the heading of the class to which they belong, while in parentheses are indicated the important nutrients of some other class which they contain.

Table Showing Classification of Foods.

I. Nitrogenous or Protein group (building material)	II. Non-nitrogenous group (heat and energy foods)		
	A. Carbohydrates		B. Fat
	(1) Starches	(2) Sugar	
Meat (fat).	Flours (protein).	Cane sugar.	Meat fat.
Milk (fat and sugar).	Cereals (protein).	Beet sugar.	Fish oil.
Eggs (fat).	Bread (protein).	Milk sugar.	Butter.
Cheese (fat).	Macaroni (protein).	Fruit sugar.	Cream.
Fish.	Rice (protein).	Syrups.	Vegetable oil.
Oysters.	Potatoes.	Honey.	(Olive, etc.).
Nuts (oil).	-----		(Nut butters).
Beans (starch).	Green Vegetables.		
Peas (starch).	Fruits (sugar).		
Gluten flour (starch).			

Other tables show the exact amount of each nutrient which foods contain or the chemical composition, as follows:

Table Showing Chemical Composition of Some Foods.

	Protein, per cent	Fat, per cent	Carbohydrates, per cent	Ash, per cent	Calories per pound
Milk	2.3	4.0	5.0	.7	325
Meat	19.0	13.1	---	1.0	1,155
Bread	9.2	1.3	53.1	1.1	1,215
Carrots	1.1	.1	9.3	1.6	210
Apples	.1	.5	11.2	.3	290

What importance attaches to knowing these food classes?

It is *fundamental* in accurate feeding and is the basis of what is termed "balance" in the diet. This is because each group of foods has a different office to perform in the body.

*Protein* is the *tissue builder*, providing both for growth and for the replacing of worn-out material. It is the largest element in muscle, brain, nerves, blood, and internal organs.

*Non-nitrogenous* material of all kinds yields *heat* which is used both for keeping the body warm, and for power or energy with which to perform work. It also builds fatty tissue, but this is only stored fuel. It can *not* build important permanent tissue. On the other hand, protein *can* and does yield heat and energy, but there are many reasons why it is ordinarily *not* wise or economical to use it for this purpose.

How are these facts applied to a dietary?

As children need a larger proportion of *growing* material than adults it is plain that their diet should contain a larger proportion of protein. On the other hand those who do heavy work or are exposed to cold require a larger amount of "heat and energy" food than do others. Every diet, it fact, should be properly proportioned between these classes, according to conditions.

What happens if children do not receive enough protein?

Their resistance to disease is lowered and they do not grow normally. In most cases the children are stunted but in other cases Nature seems determined to lengthen them out and failing in material, resorts to breaking down some of the substance of the internal organs and deep tissues and using it for building new tissue. The results are most disastrous to health.

What diets are likely to be poor in protein?

Those which contain only *small* amounts of *milk*, *meat* and *eggs* and where the principal foods are mush, bread, potato and vegetables.

What happens if the supply of heat and energy foods is deficient?

As a rule children's appetites lead them to eat a sufficient amount when the supply is not unnecessarily limited. As these foods are cheaper than the others, there is usually a sufficient amount provided. If, however, the supply is short, the children get thin and attention is thus called to the error, and all danger averted.

On the other hand children who lack protein may gain weight in fatty tissue and deceive the observer. They may "look well" and "feel well" while they gradually lose ground.

Is it important to discriminate closely between the small divisions or sub-classes of non-nitrogenous foods?

It is, some of them are "*bulky*" and some are "*concentrated*." Each kind has its special value. The bulky foods stimulate the intestine, keep the food mass porous, etc., but the process of digestion is lengthy and more or less complicated. The concentrated foods furnish a large amount of nourishment for their bulk and usually have a shorter and more simple process of digestion.

Which are the bulky foods of this class?

The so-called "starchy foods," and fruit and vegetables.

Which are concentrated?

The sugars and fats.

Is one form of concentrated food sufficient?

No. Sugar can never entirely or adequately take the place of fat.

Why is fat so important?

Fat is the only "energy food" which builds tissue. It is especially important to growing children, as it furnishes material for the building of brain and nerves and for the red marrow of the bones where the red blood cells are developed. The other energy foods may be stored as fat but do *not* build any of the highly organized tissues.

Fat is in a *large subclass by itself*. It has a different process of digestion and different channels of absorption, thus showing that Nature has made special provision for its entering largely into the diet. It is worth two and one-fourth times as much as starch or sugar for producing heat.

Under what circumstances does fat starvation occur in children?

1. When the quantity of milk is small.
2. When the quality of milk is poor.
3. When the milk is skimmed.
4. When the supply of butter is scanty.

This is especially true when these defects are not compensated for by the use of oil or other easily digested fat.

What is the value of sugar?

Sugar might be considered a concentrated and easily handled form of starchy food, for starch is changed into sugar by a rather lengthy process of digestion before it can be used by the body. *Because* it is so concentrated, it can readily be used to excess. But it is a valuable article when used as a *food* and not as an "indulgence" and should have its proper place in the dietary of a growing child and any person who exercises largely. It should not be eaten between meals.

What happens if only bulky foods are used?

The person either fails to eat a proper amount for his needs, draws upon his reserve store and thus becomes "undervitalized," or else he eats what he requires, overloads his digestive apparatus, and subjects it to unnecessary strain. This is especially true of very young children and also where the food need is large, as with the adolescent. The results of this kind of strain may not show for years, as indeed is the case with any kind of improper feeding.

*Thus* the first *Rules of Dietary Construction* are developed:

*Rule 1.* The diet should contain the proper amount and proportion of the two main classes of food.

*Rule 2.* A proper balance should be maintained between bulky and concentrated foods and a special place be given to fat.

What is the proper amount and proportion?

This question brings up the subject of

#### STANDARDS.

*Definition.* A standard is the *amount* of food which the authorities on the subject suggest as adequate or best for different people.

How is the standard arrived at?

By a combination of careful investigations into what people do eat and do thrive on, and by accurate scientific experiments.

Is the standard exact and reliable?

It is not exact for all people and is *never* intended to mark an accurate line. It rather points the limits below which and beyond which it is not safe to go. Individuals differ but a *group* represents the *average* of certain conditions and the standard for a group is a much more accurate thing than for one person. The group need *is* the average need.

How does a standard express its quantities?

The amount of protein is expressed in *grams* (1 ounce equals about 30 grams). The protein need depends principally upon weight and growth. That is, a *growing* body requires *more protein for each pound of body weight* than does one that is not growing. For instance, an *infant* requires from 1 to 1.5 grams of protein for each pound it weighs, while an adult requires only .6 to .8 grams per pound. Children of different ages require quantities between these two. Thus a child of ten years who weighs 70 pounds (stripped weight) will probably require between 70 and 80 grams of protein per day, depending upon how rapidly he is growing; while a man who weighs 150 pounds will require only 100 to 115 grams.

The amount of energy food is expressed in *calories*—a calorie being a *unit of heat*, a measure, like an inch or a yard. The number of units of heat that must be produced to keep the *human engine* running well (as with other engines), depends upon its *size*, its *rate of speed*, its *hours of work* and the *weight* of things it *moves* or *handles*, but especially upon work or work in relation to weight, etc. Thus an infant requires about 40 to 45 calories for each pound it weighs; a child of two years, 40 or less; a child of ten years about 32 calories per pound; an adult engaged in light work, about 20, and with heavy work, about 26 calories per pound. Another factor which modifies the individual need is the rapidity with which the body radiates heat. A tall thin person who weighs the same as a shorter and fatter one, requires a diet having a higher caloric value. All this can be calculated quite accurately for any individual under observation, but for a group an average is taken. Thus if the average age of a group of children is 10 years, and the amount of work and play that of the average school child, the dietary should furnish about 2,100 calories per child per day.

The mineral standard is calculated in the same manner as the protein, but for the purposes of the present discussion it is not necessary to go into these details. If the dietary contains a sufficient amount of *milk*, meat, eggs, grains, fruits and vegetables, the mineral content will be sure to meet the average need.

Thus the food standard for an average child of 10 years, who weighs 70 pounds would be expressed as 75 grams of protein and 2,100 or more calories.

## II. The Hygienic Phases of the Dietary.

A proper diet can not be arranged on a few principles alone. The first rules of balance and proportion may be followed and yet a selection of foods made in such a way as to ignore many other factors which are important to health but which come more properly under the heading of *digestive* or *hygienic* phases. Foods thus selected may be im-

properly combined; they may all be difficult of digestion; they may be repeated monotonously; they may be unsuited to the person; or some of the most necessary foods, such as fruits and vegetables, may be entirely omitted. Meat and bread might make a "balanced ration" but would be a very poor diet.

There are large differences between the various foods of the same class which make it necessary to select them with care and discrimination. Milk and cheese, for instance, are both in the protein group, but one is a perfect food for infants and the other is absolutely forbidden. In the same way, meat and dried beans both contain a large amount of protein, yet meat is admirably suited to invalids and young children while beans are not. Each food could be taken up in turn and its advantages and disadvantages dwelt upon. For instance:

**Eggs:** These have so many special qualities which render them more desirable than other foods of their group that it would require considerable space to discuss them. The fat which they contain is in the form of an emulsion (one step already accomplished toward digestion) and is combined with phosphorus in such a manner as to insure the ready absorption of that important mineral. In brief, eggs contain every necessary ingredient in the form best suited to easy conversion into the complex body of the baby chick—thus proving their value as a tissue builder.

**FRUIT AND VEGETABLES:** A glance at the table shows that these foods are placed under starches, but that a line divides them from cereals, flours, etc. *No line could indicate the width of the chasm which divides them.* These foods are valuable especially for their minerals and organic acids, their laxative properties, and the quality of *freshness* which they possess. Mineral matter is very important to the well being of the body. It is a necessary ingredient of the bones and of all the tissues and fluids of the body and is vital to the functioning of all of the organs. Almost every food contains *some* mineral matter (ash), but certain ones contain a *larger quantity* or *more important* minerals than do others. This is the case with fruits and vegetables.

**MILK:** This is a *unique* food and really stands in a class by itself, even though its large porportion of protein has caused it to be placed in that group. It contains every element necessary for the growth and maintenance of the body of the *infant* and is an invaluable food for older children. It is more readily digested than most of the foods of the protein group and has *none* of the disadvantages possessed by some of them. It has the added advantage of being a *fresh product* which is of great importance to the body. Milk should form a large part of the dietary of all children and should be served *as milk* and not in tea or coffee, which latter are *stimulants* and should never be given to children. When a hot drink is desired a "coffee substitute" made of roasted cereals may be used.

*Thus more Dietary Rules develop under Hygiene.*

*Rule 3.* The dietary should contain only those foods and combinations of foods which are suited to the *age, condition* and *digestive power* of the person or persons.

*Rule 4.* The week should contain as large a variety of food materials as is consistent with regularity of method, simplicity and economy—and the weeks should not repeat monotonously.

Is it possible to avoid monotony in feeding large groups?

Within broad limits, *Yes*. It is not only possible, but necessary. An individual may limit his diet to a few self chosen foods which are well suited to his individual needs and thrive. But as the members of a group are denied the privilege of choice and as a group holds within it the entire range of possible differences in individual need, the *greater* the *variety of food* the more closely is the group need met, and the larger the proportion of children whose needs are provided for.

*Rule 5.* Fruit and vegetables should *each* be served at least once a day and preferably not at the same meal.

*Rule 6.* One kind or one class of foods should not be massed at one meal but should be distributed over the day.

*Why?* There are many reasons for this rule, depending upon the kind of food in question. *First:* Too much of one sort of material puts a strain on the organs and juices involved in its digestion. *Second:* Foods often are utilized better if accompanied by others, as protein with carbohydrates. *Third:* Nature is often only capable of handling a certain amount of one kind of material in a given time, and therefore it is more economical to distribute important and valuable foods over the three meals so as to insure as full a utilization as possible. This applies to protein, to fruit and vegetables, to sugar, etc.

What other things are there to consider under the hygiene of foods?

All questions of the digestibility of separate foods and food combinations, of methods of cooking, etc., but as rich foods, mixtures, made dishes, etc., are not frequently served at orphanages, these rules will be omitted and a few suggestions on cooking given later.

### III. The Esthetic Phases of the Dietary.

In considering the subject of food, it is perhaps not in place to speak of the development of the "non-physical" part of the nature of the children (whether this be called the esthetic, artistic, spiritual, etc.), which may be stimulated by the cleanliness and beauty of table appointments and the attractive appearance of food. But the *beneficial results* to the *physical body* of such elements are *decidedly* in place in this discussion.

The old saying, "Digestion waits on appetite," has been proven to be correct by late scientific investigation. The first flow of gastric juice which is essential to the perfect digestion of food is entirely a nerve affair and not due to chemical or mechanical action. It is stimulated by appetite or the desire for food, by its odor, or taste. In other words, anything which makes an appeal to the senses, which pleases or attracts whether through color, form, flavor, or what not, will start digestion as nothing else can.

Under ordinary conditions strong healthy children should not require frequent "sense appeals" of this kind, as do weary brain workers. But as group feeding must tend more or less to monotony and as it can not cater either to the individual need or the individual craving, resort should be had more often to these methods of awakening interest and stimulating the "appetite juice," than is usually necessary in feeding an individual child.

It must also be remembered that other nerve conditions affect digestion even though the stimulation has nothing directly to do with the food. An attractive dining room, a cleanly and well arranged table, flowers, pleasant conversation—all these smooth the paths through which nerve currents flow and pave the way for good digestion. The dining-room should be neither funereal nor noisy, and where the children are too young to converse in low tones, they should be talked to occasionally by the attendants so as to avoid that depressing and unnatural silence while eating. All unnecessary discipline should be avoided, and the meal time regarded rather as an opportunity for telling interesting and instructive anecdotes suited to the various groups.

#### IV. The Economic Considerations of the Dietary.

True economy consists not in doing without some much needed article, but in getting *full value* for the money expended and making *full use* of what is purchased. The number of pounds that can be bought for 25 cents is no real gauge of the economy of the purchase. Some foods have a much larger proportion of water than others, which water can be had more cheaply from the faucet than from the "cheapest" food. Some have a larger proportion of "concealed protein" than others of the same class, and are worth more, for protein foods are more expensive than others, the world over. Suggestions for economic buying will be given later.

##### A STANDARD DIETARY FOR AN ORPHANAGE.

The accompanying dietary has been arranged for a group of children whose average age is 10 years, varying from 8 to 12. Other ages are



discussed later. The *amounts* of the various foods used have been gauged in different ways:

1. The amounts of the important foods—meat, milk, fruit, etc., considered necessary and advisable.
2. The amounts of other foods, bread, mush, potato, which have been *actually consumed* in several institutions, when accompanied by *proper amounts* of the first set, thus allowing for instinctive appetite.
3. The amounts which give a correct value and balance according to scientific investigations.

In this way, an effort has been made to avoid any extreme bias by allowing these different factors to check up on each other.

The weights are for "*raw materials*" as dispensed from the store-room and are provided in quantities which allow a reduction of 8 to 10 per cent for refuse and waste, thus bringing the nourishment 10 per cent less than the totalled results. Thus if the protein reads 82 grams it is safe to suppose that the child eats about 75 grams.

**Is it necessary to adhere to the amounts of food prescribed in a dietary?**

Yes and no. Children should usually be allowed to *satisfy their appetites* on the *plain foods*, although in some cases it *may* be necessary to limit the amount.

The important foods as meat, milk, eggs, butter and fruit should be supplied in the amounts suggested so that the children may have an *opportunity* to consume an adequate amount, if so inclined.

The quantities are good averages for a group. Some of the children will eat more and some less, thus avoiding prescribed amounts for any individual. *None* of the quantities will be found to be accurate for *all groups* and a little careful experimenting will enable each institution to find its average consumption, thus avoiding both shortage and waste.

A good rule is to *allow more* of the foods which are not injurious, in large quantities, where the *appetite* or *legitimate need* seems to demand it. But *never* to *cut down* on the most *valuable* foods unless there is evidence that the amount is really too large.

**Are small differences in quantities ever important?**

A paper and pencil, and a little arithmetic will soon make it plain, *how much* the food value goes up or down by variations in some kinds of food. It would prove an interesting occupation for an evening to subtract *butter* and *sugar* from one of the meals and see the calories go down and then do the same for vegetables, fruits, potatoes, etc., or to take out the *meat* and see how much bread and potato would be required to supply an equal amount of *protein*. When, after that, it is remembered that *daily* differences are repeated *365 times* in a year, it at once becomes apparent that important values may be accumulated by *slight* additions in quantity to some foods.

NOTE.—The amount of sugar in the following dietary has been placed at *one ounce* as a convenient *average*. It must vary of course with the acidity of the fruit or other material with which it is cooked, and also with the size of the serving. It might often be nearer one-half ounce, and at times more than one ounce.

# STANDARD DIETARY FOR CHILDREN EIGHT TO TWELVE YEARS. Menu for First and Third Weeks.

	Breakfast				Dinner				Supper			
	Food material	ounces	Protein	Calories	Food material	ounces	Protein	Calories	Food material	ounces	Protein	Calories
Sun-day	Shredded wheat	1.0	3.1	101	Rice	—	.1	17	Hot milk	6.0	6.3	130
	Top milk	2.0	2.1	70	Soup	5.0	3.0	30	Sugar	1.0	—	120
	Sugar	1.0	—	120	Roast lamb	5.0	22.0	300	Cereal coffee	—	—	—
	Bread	3.0	7.7	217	Potato	5.0	2.6	95	Bread	3.0	7.7	217
	Butter	.5	.2	100	Vegetable	1.0	1.3	25	Butter	.5	.2	100
Mon-day	Egg	2.0	7.0	80	Bread	—	—	217	Gingerbread	2.0	3.3	208
	Cocoa	.1	1.5	70	—	3.0	7.7	—	Fresh fruit	5.0	.6	70
	Milk	5.0	5.3	117								
	Sugar	1.0	—	120								
	Totals	15.9	27.2	998	Totals	22.2	37.0	681	Totals	17.0	18.1	815
Total for day											82.3	2,555
Mon-day	Milk	6.0	6.1	115	Beef loaf	5.0	23.0	250	Milk tomato soup	6.0	1.2	210
	Sugar	1.0	—	120	Potato	5.0	2.6	95	Crackers	1.0	2.8	120
	Cereal coffee	—	—	—	Vegetable	1.0	1.3	25	Cheese	.5	1.0	62
	Bread	3.0	7.7	217	Parsin bread	1.0	11.5	350	Bread	3.0	7.7	217
	Corn bread	2.0	1.0	133					Butter	.5	.2	100
Thurs-day	Syrup	2.0	—	180					Milk	6.0	6.4	130
	Totals	11.0	18.1	795	Totals	18.0	38.1	720	Totals	17.0	25.3	839
	Total for day										87.8	2,555
	Puffed rice	1.0	3.5	120	Stew	6.0	21.0	275	Beans	1.5	9.6	118
	Top milk	2.0	2.1	70	Potato	5.0	2.6	95	Syrup	.5	—	30
Thurs-day	Sugar	1.0	—	120	Vegetable	1.0	1.0	25	Pork	.5	.5	120
	Bread	3.0	7.7	217	Bread	2.0	5.3	115	Brown bread	3.0	3.0	190
	Butter	.5	.2	100	Brown Betty	5.0	7.0	208	Milk	8.0	8.5	180
	Cereal coffee	—	—	—					Cooked fruit	1.0	.6	70
	Milk	5.0	5.3	117					Sugar	1.0	—	120
Thurs-day	Sugar	1.0	—	120								
	Totals	13.5	18.8	861	Totals	22.0	36.9	718	Totals	18.3	23.7	858
	Total for day										79.4	2,470

[illegible]

**STANDARD DIETARY FOR CHILDREN EIGHT TO TWELVE YEARS—Continued.**  
Menu for Second and Fourth Weeks.

	Breakfast				Dinner				Supper			
	Food material	Ounces	Protein	Calories	Food material	Ounces	Protein	Calories	Food material	Ounces	Protein	Calorie
Sun-day	Sugar -----	1.0	-----	120	Roast beef -----	5.0	23.0	250	Milk -----	5.0	5.3	117
	Cooked fresh				Brown potato -----	5.0	2.6	95	Sugar -----	1.0	-----	120
	Fruit -----	1.0	4.6	60	Lettuce -----	1.0	3	6	Cereal coffee -----			
	Bread -----	3.0	7.7	217	Dressing -----	5	-----	125	Cottage cheese -----	2.0	12.0	62
	Butter -----	5	2	100	Bread -----	3.0	7.7	217	Bread -----	3.0	7.7	217
	Mush -----	1.0	3.1	100	Blane mangle -----	1.0	1.0	112	Butter -----	5	2	100
	Sugar -----	1.0	-----	120	Jelly -----	1.0	3	86				
	Milk -----	2.0	2.1	70								
	Milk -----	7.0	7.1	151								
	Totals -----	19.5	21.1	498	Totals -----	19.5	37.9	891	Totals -----	11.5	25.2	616
Total for day -----												
Mon-day	Hashed potato -----	5.0	2.6	95	Chuck -----	5.0	23.0	250	Rice -----	1.5	3.0	132
	Fat -----	3	-----	80	Macaroni -----	1.5	1.6	134	Top milk -----	2.0	2.1	70
	Egg -----	2.0	7.0	80	Butter -----	3	1	70	Sugar -----	1.0	-----	120
	Milk -----	7.0	7.1	151	Tomato -----	1.0	1.0	25	Milk -----	6.0	6.3	130
	Bread -----	3.0	7.7	217	Bread -----	3.0	7.7	217	Bread -----	3.0	7.7	217
	Butter -----	5	2	100					Butter -----	5	2	100
									Cooked prunes -----	1.5	3	110
									Sugar -----	1.0	-----	120
	Totals -----	17.8	21.9	723	Totals -----	13.8	37.1	696	Totals -----	16.5	20.1	999
Total for day -----												
Tues-day	Oatmeal -----	1.0	1.7	113	Boiled beef -----	5.0	23.0	250	Creamed vege-			
	Top milk -----	2.0	2.1	70	Potato -----	5.0	2.6	95	Table -----	6.5	1.3	110
	Sugar -----	1.0	-----	120	Bread -----	3.0	7.7	217	Cheese -----	2	2.0	31
	Bread -----	3.0	7.7	217	Cooked apri-				Bread -----	3.0	7.7	217
	Butter -----	5	2	100	cots -----	1.5	2.1	115	Butter -----	5	2	100
	Milk -----	7.0	7.1	151	Sugar -----	1.0	-----	120	Milk -----	8.0	8.5	180
									Cake -----	2.0	4.0	200
	Totals -----	11.5	22.1	771	Totals -----	15.5	35.1	797	Totals -----	20.3	26.7	868
Total for day -----												

[illegible]

STANDARD DIETARY FOR CHILDREN EIGHT TO TWELVE YEARS—Continued.  
Menu for Second and Fourth Weeks—Continued.

[illegible]

### Suggestions for Dietary Administration.

The children who happen to be gathered under one roof, in an orphanage, represent many varying constitutional types, widely differing ages, and stages of development, and therefore often present radically different food requirements.

It is not possible, except in cases of illness and disabilities, to consider the children individually; but it *is* possible, and indeed *necessary* to divide them into *groups*, according to age, stage of growth, etc., and to modify the diet for *each group*. These three or four groups would be analogous to the three or four children of a normal family, and should be considered somewhat separately, just as a mother considers and provides differently for her girl of six and her boy of fourteen, without having entirely different meals for each. This can be accomplished very easily by arranging the standard or *basic dietary* to suit the *large average middle group* of the institution and making additions and subtractions thereto to suit the older or the younger children. It will not be found necessary to make these changes in each meal, for very often the difference will lie entirely in the varying quantities consumed, and as a rule a change for one group is all that will be required at one time. The menu as planned will stand *unchanged always* for the largest number of children.

The number of divisions thus made will depend upon the range of ages. The children between eight and twelve form one logical group, provided that any child who needs developing or who has already started on that period of rapid growth which usually comes between twelve and fourteen years, is considered as belonging to the older group. Also that any child of eight who is delicate or has weak digestion is grouped with the younger ones and fed more carefully. In other words, it is more truly a *condition qualification* than one of age.

These groups may be designated in any way which suits the fancy of the housekeeper; as, for example:

Group 1, aged 4 to 6.	} or {	A—adolescents (12 to 16).
Group 2, aged 6 to 8.		B—babies (4 to 6).
Group 3, aged 12 to 16.		C—children (6 to 8).
(8 to 12 need not be mentioned.)		D—diet (special diets).

As a rule the B and C are provided for together, but for occasional differences it is well to be able to distinguish, especially where some food a little difficult of digestion is to be allowed to the C but *not* to the B group.

If there are a large number of children between 3 and 8, it would be better to arrange two decidedly separate groups—B from 3 to 5 and C from 5 to 8. Or, on the other hand, if there are only a few, all those

below 5 and those between 5 and 8 who are delicate could be termed babies, and the strong children over 5 counted with the 8 to 12 year olds.

Again if the majority of children are between 6 and 10, *these* would form the large middle group for whom the dietary is arranged, those below 6 the B and over 10 the A group.

No mention has been made of children below three years of age, for they should have a separate dietary prescribed by the physician of the institution. It is very important that children be watched *individually* while the diet progresses through the several stages which should intervene between the "bottle days" and the full, all-round diet.

For the use of those institutions which are removed from the possibility of close supervision by a physician, some diets for very young children will be found at the end of this booklet. The amounts given for these ages are of the *cooked foods* and *edible portions* so that they can be gauged *at the table* where necessary. The amounts given for the eight to ten years, it will be remembered, are *storeroom* weights—*raw food*, as *purchased* (except for pudding, cake, etc.) and could *not* be gauged for one child by weighing or measuring at the table.

### The Needs of the Group.

Group A, the adolescents, should always be especially considered. There is no human creature whose food needs are so many as that of the growing boy of 14 or 15. He often exercises as much or more than the average adult and is growing and maturing besides. He needs food for the growth and development of every tissue of the body and fuel enough to keep the boiler going under full steam. Here, more than anywhere else, is there a need for extra meat, cheese, beans, fats and sweets—a good proportion of bulky and concentrated foods. He can be provided with extras for either breakfast or supper, when necessary, from the food which is prepared for the adults of the institution, and thereby place no extra burden on the cook.

The girls belonging to this group usually do not exercise as much as the boys and do not require as much energy food. They should be watched for signs of anamia and supplied with plenty of eggs, beans, spinach, lettuce, and other *green* and *highly colored* vegetables and fruits for the sake of the iron which they contain. When growing rapidly their need of protein is just as great as that of a boy, but in proportion to the varying body weights.

Group B requires a larger *proportion* (not amount) of its protein food to be supplied by *milk* and *eggs* than by meat. A "between meal" of



milk or milk and light crackers, should be served in the morning or afternoon, whichever contains the longest interval between the meals. The foods more difficult of digestion should be withheld: corned beef and cabbage, sausage, cheese, dried beans (unless the skins be removed), etc. More butter and cream should be used and less fat and oil. The meat should be chopped or cut fine and very coarse vegetables should be mashed.

Group C comes just between B and the dietary group and can be classed with either one according to the day's menu. They are in the stage of developing up to the full all around diet, and by careful selection, might be divided "out of existence" under favorable conditions by being held back with the babies or promoted early to full diet. They will often be found to require an afternoon bite when first sent to school—or to sleep better on a very light supper.

Group D, or the Special Diet Group, consists of those who are convalescing from illness or who are delicate or under-nourished. These children are fed according to the orders of the physician, and it is a good plan to place other children at this table from time to time when they are found not to be gaining in weight. The food should always be more simple, more carefully prepared and more nourishing than the ordinary diet and a week of change of this kind will often stimulate appetite and digestion and start a period of improvement in a child who has not been "doing well."

The extra dishes required by this group can usually be prepared by the older girls of the institution and allows an excellent opportunity for training in careful methods of food preparation. It is always a good plan to have these girls prepare surprise dishes for supper, for a group at a time, and also to attend to the decoration of the table and of prettily served dishes which lend esthetic value to the diet. Indeed, this method of supplying dishes which are difficult to prepare, to different tables in turn, is an excellent one. No dish which is good and nourishing and very relishing need be entirely blacklisted because it "can not be prepared for 100 children." It can be prepared for twenty at one time and twenty at another. Again, there are many things which the 100 or 200 do not require, but which *should* be served to those who are of an age to crave more variety, or who long for certain flavors, as toast, fried potatoes, hot biscuit, pancakes, etc.

The changes for the different groups may be indicated in the menu of the housekeeper in some such manner as the following:

	Breakfast	Dinner	Supper
Mon- day	Corn bread Syrup Bread Milk or cereal coffee (A and B eggs)	Beef loaf Potatoes Vegetable Bread Sweet crackers	Milk soup Crackers and cheese* Milk Bread Fruit
			(*Not for B)
Tues- day	Fruit Bread Butter Eggs Milk	Soup Liver and onions Potato Bread (B and D scraped beef)	Rice and top milk Bread and butter Milk Jelly (A meat)

### The Arrangement of Meals.

The preferred time for the heartiest meal for young children, invalids, and elderly people, is in the *middle of the day*; and it is certainly best for little ones who go to sleep within an hour after eating supper, that this meal should be light. On the other hand, when children advance to the age when the evening is prolonged, they will often become hungry before bedtime, if the supper has been light—or else will feel “gone and empty” before breakfast. This has no relation to the nourishing quality of the supper. Bread and milk and stewed fruit may contain sufficient nourishment, but being easily digested will leave the stomach empty in a few hours, whereas a meal containing beans or cold meat and potato salad will be found to have more “staying” qualities. For this reason, if for no other, the supper of the older children should contain the added foods suggested above.

In the same way, a light supper demands that the breakfast should be hearty, while a heavy dinner at night often calls for a light breakfast. It is also very undesirable to have a light lunch follow a light breakfast. It would, therefore, seem that the best arrangement for all groups is to have a noon dinner, preceded by a nourishing breakfast and followed by a supper which shall be light for the babies and reinforced for the adolescents. The supper of the Standard Dietary comes between these two, and sometimes requires additions for Group A or subtractions for Group B.

### Suggestions for Attaining Variety.

The opportunities for varying the dietary are far more limited for a large group than for a small, especially so when it is necessary to keep the cost down to a minimum. But the difficulties should only add zest to the effort, and by making use of *all methods*, a surprising result may be accomplished.

**Suggested methods:**

- I. Change of menu as a whole.
  - a. There should be two different but equally good weekly menus, each containing standard *repeatable* meals with only the average number of unusual foods or "treats." These weeks should be used alternately.
  - b. In repeating the menu the day or the meal upon which certain foods appear should be changed.
  - c. A third menu containing a larger number of "odd dishes" may be kept for occasional use.
- II. There should be a separate list of foods kept in a conspicuous place which are not considered staple, either on account of cost or difficulty of preparation. These should be inserted into the dietary at intervals.
- III. Such variations should not be left to chance memory but should be as much a part of dietary procedure as the ordering of the meat or the soaking of beans. Some convenient rules might be made, as: a surprise on Wednesday—or a new breakfast dish one week—a supper dish the next, etc. The question of what shall the surprise be should come as naturally to the lips as "what kind of vegetables shall we have?"
- IV. Changes in the kind of staple used as different cereals, breads, vegetables, meats, fruits, etc.
- V. Changes in the method of cooking or serving the staple foods.  
*i. e.:*

	VEGETABLES.	RICE.	MUSH.	BEANS.
Boiled plain.	As salad.		With sugar and milk.	Baked with fat, etc.
Mashed.	In meat soup.		With syrup.	Cold as salad.
Creamed.	In milk soup.		With butter.	Pureed (as soup).
Baked.	In warmed overs.		Fried with syrup.	With tomato sauce.
			Cooked with milk.	In stew.
			with dates.	Boiled with meat gravy.
			with raisins.	
With gravy.				
With milk and sugar.				
With butter and sugar.				
With cinnamon and sugar.				
With tomato.				
With tomato and cheese.				
With meat and gravy.				
- VI. Changes in the flavoring materials from vanilla to lemon or a mixture of vanilla and almond from extracts to fresh fruit juice—or the use of a new spice—are very grateful, as are also the use of a variety of coloring material.

VII. Variety may be accomplished by *withdrawing* a *staple* from the dietary as well as by adding a new food. This accomplishes a double result of *resting* the system and then stimulating it by the return of the article.

VIII. Seasonal changes. The opportunity to give variety in this way should not rest entirely upon the change of fruits and vegetables which the seasons bring. Advantage should be taken of unusually cold and warm weather to make complete changes in certain meals; for instance, the dinner on a hot day could contain cold meat, or salad, lemonade, etc.—a cold canned salmon or a vegetable salad and *et ceteras*. Sherbet or ices should be made. More cold foods of many kinds could be used and would not only prove inviting and refreshing but would make the hot soup and chocolate, etc., much more gratifying later on, by contrast and appropriateness when the cold snap arrives.

### **Suggestions for the Hygienic and Digestive Phases of the Dietary.**

While individual characteristics have much to do with the ability to digest certain foods or combinations of foods, there are many general principles that apply to the great majority of people, and also certain faults which are often found in group feeding.

Great care should be exercised in the cooking of all starchy foods in order that they may be easily digested. Mush, macaroni, and rice all require long cooking and plenty of water. Cooking vessels which allow of a steaming process after the necessary water has been absorbed, and which yet prevent *burning* are the most desirable.

Bread should be sweet, light and thoroughly baked, and *entire wheat* flour should be largely used.

Teast, crackers, or hardtack, and zwieback should be served in order to encourage the act of chewing.

Foods which are difficult to digest, as corned beef, beans, etc., should never be repeated at short intervals.

Fat should be carefully considered. It is often noticed that both children and adults who have been fed in large groups develop a disgust for fat and fat bearing foods. This may be due to the fact that less care has been exercised in the amount and kind of fat which reaches the table, than is usual in the home. While fats of different kinds are very valuable food material, they are not all equally well digested. Those which melt easily or which are ordinarily fluid are much more easily digested than the harder ones. Fat which gets hard on the plate or whenever it cools should not be eaten. Therefore it is very necessary to cut the fat

off mutton before stewing it, or to allow the stew to cool and remove the fat before it is served. A piece of boiled beef or corned beef which is very fat should be pressed under a weight before serving in order to remove the fat which has settled between the fibers of the meat.

The most easily digested fats are cream and butter, bacon fat, then oil and chicken or lamb fat, then some softer beef fats.

**CREAM:** The milk supply for the children of an orphanage should be handled in the following manner: The amount required for drinking purposes should be served as *whole milk*. That portion which is to be used for cocoa, milk pudding, general cooking or extra milk of *older* children should be allowed to stand long enough to have the top removed for cereal or for puddings. This cream or top milk is not only more easily digested than if boiled in the cooked foods but adds relish to the dishes upon which it is served.

### **Suggestions for the Esthetic Phases.**

It has been proposed that the older children might have a large share in the extra work entailed in making the dining-room, the table and the food present an attractive appearance. Even little children can do considerable in this line if taught in very small groups.

Aside from actual decorations, and prettily arranged salad dishes, much can be done by having a set of individual custard cups or small bowls. Junket can not be served from a large dish and look appetizing and it is a very easily digested and inexpensive dessert. It is especially refreshing in hot weather. When these cups are used as moulds for gelatines and puddings which are to be "turned out" the extra dish washing involved could be managed by the older children.

On special occasions, birthdays, holidays, etc., it is very interesting and educational for the girls to plan table decorations which shall harmonize with the color of the foods which are to be served. Thus artistic taste in the children and the esthetic phases of the dietary may be developed at one and the same time.

### **Suggestions for Economy.**

It has been said before that economy does not always mean doing without desired articles, but rather making wise selections and careful use of what is purchased. To save a cent or two a pound by buying food material of such poor quality that a large percentage is refuse or else is so unappetizing that it is left upon the plates and becomes "waste" is *not* economy but extravagance. Enough can be saved by careful buying and complete utilization of the staple foods to justify many a "treat" for all hands.

The only accurate gauge of economical buying is made by a comparison of the food values of several articles with their relative costs. This calculation is sometimes based on the protein content and sometimes on the caloric value. Neither method is accurate, as each omits the other important factor.

A better plan is to give an arbitrary money value to each nutrient—protein, fat and carbohydrate. In this way a food value can be expressed in terms of money and easily compared with the market price. Even if the value set changes it is as fair for one food as for another and makes a good basis of comparison, especially between foods of the same subclass. It would not be wise to compare flour and fruit because it is not possible to put a money value on hygienic factors. But mushes may be compared with each other, fruits with fruits, meats with meats, etc.

In the following table the market price or cost is compared with the "money value of the food value" in this manner:

Costs and Food Values Compared.

	Cost per pound	Worth in food value per pound		Cost per pound	Worth in food value per pound
Germea -----	\$0.02	\$0.11	Bakers' flour -----	\$0.02	\$0.11
Corn meal -----	.02	.09	Dried beans -----	.01	.18
Oatmeal -----	.03	.18	Peas, split -----	.05	.20
Rice -----	.05	.09	Cheese -----	.25	.35
Macaroni -----	.01	.12	Milk -----	.03	.027
Chipped beef -----	.33	.19	Prunes, dried -----	.05	.036
Codfish -----	.08	.19	Apples, dried -----	.06	.038
Salmon, canned -----	.10	.11	Figs, dried -----	.06	.060
Bacon -----	.23	.12	Raisins -----	.05	.058

N. B. — These figures are based on wholesale prices.

It was found by experiment in one orphanage that between 40 and 50 per cent of the daily supply of potatoes became "refuse" through the careless and unskillful paring which was entrusted to small boys. In another, 60 per cent of the macaroni cooked for supper was wasted because it had been burned and 70 per cent of stew because it was extremely fatty and not thoroughly cooked. In the same institution, there was only 5 per cent left on the plates when these same dishes were properly cooked the next week.

Each institution has its own problems of buying—some are able to handle large quantities of supplies and others can not, and each one must needs make an individual study of the problem. The subject divides itself into methods of purchasing and storing, methods of preparing and utilizing.

Under purchasing, it is necessary to consider *food value* with cost (as spoken of previously); the difference in the percentages of refuse of two

*grades* of the same food; the possible deterioration due to storing; the season; the saving through buying in quantity; the cost of the fresh in relation to dried or canned product of the same material, etc. No rule or figures could be given for any one of these subdivisions that would apply to all foods. What is true of one is not true of another; and what is true one year changes the next. One summer a certain fruit may be purchased *fresh* as economically as the dried, another year it is far more expensive. Constant calculations of this kind are part of the business of housekeeping.

Under the heading of preparing and utilizing foods, comes all the methods of reducing refuse and waste to a minimum and the using of "left overs." A large percentage of the valuable minerals of vegetables is daily cast down the sink drains when these are boiled in an excess of water, instead of being steamed. The outside leaves of lettuce which are not fit to serve raw for salad can be steamed as "spinach" for the older girls; jelly can be made of apple cores and parings; orange peel may be easily candied and put away for occasional use in cake or puddings. In many such ways as these, waste may be saved and additional articles added to the dietary on insignificant cost.

All methods of storing foods during the season of least cost should be carefully considered. Jelly and jam can be made at a very moderate price after the initial expense for containers has once been met.

Eggs should always be preserved during April and May for use during the fall and winter. Full directions for preserving or "putting down" eggs and also any desired data on food values in relation to cost, can be had by applying to the Division of Nutrition, College of Agriculture, University of California, Berkeley, Cal.

### **Suggestions for Gauging a Dietary.**

The question is often asked "If the children look fat and well, is that not a proof that the food is all right?" This question could be answered by asking another: "If a child is obedient, is that not a proof that his moral and spiritual education is complete and that he may be pronounced thoroughly virtuous?" By no means. It is necessary to know that he is truthful, courageous, industrious, persevering, affectionate, sympathetic, unselfish, etc., before all effort for his moral welfare is discontinued.

In the same way, it is necessary for those who have the responsibility of seeing that a child develops into his best and most efficient manhood, to keep before the mind *all* of the details of the picture of a physically perfect boy. In other words, it is necessary to have a physical ideal, as well as a spiritual one. Indeed, many apparently moral defects are directly traceable to wrong bodily conditions, many of which are due to

defective nourishment. Only when the child is well grown for his age, the proper weight for his height, normally strong in muscle and nerve; only when the eyes are bright, the skin clear, the face rounded and rosy, the lips red, the chest full; only when he eats well and sleeps well, has a clean tongue, good breath, and good digestion; only when he wakes rested and ready for a full day of "healthy work and happy play"—only then may he be pronounced *well*, and only then may his appearance be considered an adequate gauge of the perfection of his dietary. In the meantime it is best to test the dietary by other standards, as well as by his appearance.

There is nothing so conducive to growth and development as self-criticism and as there are many reasons why individuals or groups may not be able to follow a suggested menu very closely it is often just as helpful to have a basis for judging and improving a menu which is already established. For this purpose it may be well to give a method by which this may be accomplished.

There are really two parts to a dietary; one shows the *quantity* and *proportion* of the different food elements or important staple foods, and the other which is the *menu*, shows the *arrangement*, *combinations* and *distribution* of these foods. A menu alone which does not indicate quantities would not speak for the actual nourishment which the children receive; neither would a list of the quantities of the staples used in a month, speak for the good catering displayed in the menu.

The first part, or the quantity of nutrients furnished may be judged in the following manner: A list is kept of the amount of each staple food used. For instance, the milk quantity is divided by the number of children and thus reduced to the amount used *per child, per day*. The same with meat, vegetables, etc., and all the foods which are supplied in daily amounts. Flour, sugar, beans, etc., which are dispensed from the storeroom can be weighed each time a supply is sent out.

Another method is to have *all food* delivered to the storeroom and dispensed from there. Each article *used for the children* is weighed or measured before it is sent to the kitchen. A record is kept for one week, the amounts are divided by seven and then by the number of children; and the results tabulated.



The following table may be used as a basis of comparison for the above results:

Approximate Amounts of Staples in the Standard Dietary.			
	Amount, ounces	Protein, grams	Calories
Meat -----	4	24.0	220
Milk -----	20	20.0	400
Eggs -----	1	3.0	70
Bread -----	9	23.0	650
Potatoes -----	5	2.0	95
Butter -----	1	.5	200
Sugar -----	3	-----	360
Vegetables -----	4	1.5	40
Fruit -----	4	1.0	75
Extras, cereal, oil, jelly, rice, sago, etc -----	-----	5.0	250
		80.0	2,330

This table is arranged for an orphanage where the average age is 10 years, weight 70 pounds (stripped) and the quantities allow for refuse and waste. If the average age were 8, weight 60 or 64 pounds, the protein need be only about 70 grams, the calories 2,100 and so.\*

The second or menu part may be judged by looking it over carefully to see that no important rule of dietary construction is interfered with. For that purpose it is well to have a

#### Summary of Rules Which Should Govern Menu Making.

1. Each day should provide an adequate amount of food, of a kind suited to the needs of the individual or the group.

2. A proper proportion should be maintained between the protein and carbohydrates, although this proportion varies with the meat or the non-meat meals.

3. Each subclass of foods should be represented also.

4. Vegetables and fruit should each be used *at least* once a day.

5. The fat foods, sweets, fruits, concentrated protein foods, should be well distributed over the day and week and no one kind massed at a meal.

6. There should be a variety of food materials of the same class as well as different methods of cooking.

7. Foods which are even *slightly* difficult to digest should not be repeated near together.

\*N. B.—The standard for any set of children may easily be obtained from books on this subject or by applying to the University of California.

The following menus have been arranged with these rules in mind and may suggest some combinations that will aid in giving variety :

MENU FOR FIRST AND THIRD WEEKS.

	Breakfast	Dinner	Supper
Sunday	Shredded wheat Top milk Bread and butter Eggs Chocolate	Rice soup Roast lamb (Shoulder) Potato Vegetable Bread	Milk and cere Bread and butter Gingerbread Fruit
Monday	Corn bread Syrup Bread Milk or cereal coffee	Beef loaf Potato Vegetable Raisin bread	Milk and tomato soup Crackers Bread and butter Milk Cheese
Tuesday	Puffed rice Top milk and sugar Bread and butter Cereal coffee	Stew Potato Vegetable Bread Brown Betty	Beans and gravy Brown bread Butter Milk Cooked fruit
Wednesday	Mush Top milk Bread and butter Milk Egg	Hamburger Potato Bread Fruit	Vegetable salad Bread and butter Milk Cake
Thursday	Fruit Chocolate Bread and butter	Chuck Mashed potato Bread Vegetable Candy	Macaroni Tomato Milk Bread and butter
Friday	Zwieback Milk and sugar Bread and butter Milk	Baked fish with white sauce Potato Vegetable Bread Jelly	Chocolate Bread and butter Fruit tapioca Top milk
Saturday	Fruit Mush and top milk Bread and butter Milk	Pot roast Rice and gravy Bread Onion and lettuce salad with dressing	Baked potato and butter Egg Bread and butter Milk

N. B. The eggs are prescribed at a minimum in these menus. They should be used more often during the summer.

MENU FOR SECOND AND FOURTH WEEKS.

	Breakfast	Dinner	Supper
Sunday	Stewed fruit Mush and top milk Bread and butter Milk	Roast beef Brown potato Bread Lettuce and dressing Blanc mange and jelly	Milk or cereal coffee Bread and butter Cottage cheese
Monday	Hashed potato Egg Milk Bread and butter	Chuck Macaroni, tomato and butter Bread	Rice and top milk (cinnamon and sugar) Milk Bread and butter Fruit
Tuesday	Oatmeal mush Top milk and sugar Bread and butter milk	Boiled beef Potato and gravy Bread Fruit	Creamed vegetable with cheese Bread and butter Milk Cake
Wednesday	Flakes Top milk and sugar Chocolate Bread and butter Fruit	Beef round Potato Carrots grated and salad dressing Bread	Noodle soup Bread and butter Milk Milk pudding (rice or tapioca)
Thursday	Fruit Bread and butter Ginger cake Cereal coffee	Fried liver and onions Potato and top milk Bread	Lima beans and butter Milk Bread and butter Graham crackers Syrup
Friday	Fruit Bread Toast and butter Cocoa	Egg Rice and gravy Bread and butter Milk Peanuts	Fish chowder Milk Bread and butter Gelatin and top milk
Saturday	Mush Top milk and sugar Bread Jam Milk	Beef round Potato Bread Vegetable Gingersnaps	Fish salad Cereal coffee Bread and butter Cooked fruit

AN EXTRA WEEK FOR VARIETY.

	Breakfast	Dinner	Supper
Sunday	Shredded wheat Top milk and sugar Bread and butter Milk or cereal coffee	Boiled mutton Mashed potato Vegetable Bread Milk sherbet	Chocolate Bread and butter Fruit Coffee cake
Monday	Rice with raisins Milk and sugar Milk Bread and butter	Hash Potato Salad Sweet crackers	Warm-up potatoes Cottage cheese Milk or cereal coffee Bread and butter
Tuesday	Egg and potato Creamed codfish Bread and butter Milk	Boiled beef Baked corn Potato Bread Pickles	Milk Bread and butter Peach cobbler
Wednesday	Mush and top milk Bread and butter Milk	Beans Bread and butter Milk Stewed fruit Crackers	Soup in cups Cold meat Potato salad Bread
Thursday	Fruit Milk toast Bread and butter Milk	Split pea soup Croutons Baked heart Potato Radishes	Bread and butter Milk Ruddi Grots Top milk
Friday	Cooked fruit Mush Bread and butter Milk	Baked halibut and baked onions Potato Bread	Eggs Noodles in milk Bread and butter Milk
Saturday	Hot apple sauce Bread and butter Milk	Pot roast Potatoes and gravy Bread Candy	Macaroni, tomato sauce and grated cheese Sour beets Bread and butter Milk

SURPRISE DAYS FOR OCCASIONAL USE.

Breakfast	Dinner	Supper
Hot cakes Syrup Bread and butter Milk or cereal coffee	Roast beef Browned potatoes Vegetable Bread Chocolate pudding	Hard boiled eggs Milk Bread and butter Fruit
Hot biscuits Mush Milk or cereal coffee	Stew and vegetables Potato Bread Nuts and raisins	Milk toast with a baked egg on top Milk Bread Fruit
Sugar toast Milk Bread and butter Fruit	Rice, meat and gravy Vegetable, tomato or grated cheese Bread Cake or Fruit	Bean salad Crackers Milk Bread and butter
Mush with figs or dates in milk Bread and butter	Ribs of beef with carrots, onions, tomato and gravy Bread Cottage pudding and sauce	Crackers Cheese Bread and butter Chocolate Fruit
Milk toast Bread and butter Milk Fruit	Shoulder of mutton and dressing in pan Potato Bread Pickles	Milk or cocoa Bread and butter Bread and syrup Junket
Apple cake Bread and butter Cocoa	Fish hash (canned salmon or tuna) Bread Baked pumpkin pudding	Puree of lima beans and butter Milk Bread and butter Fruit
Eggs scrambled with cubes of fried bread Bread and butter Milk	Meat pie with potato Sour beets Bread Candy	Fried mush and syrup Milk Bread and butter

N. B.—Not to be used as a weekly menu.

DIRECTIONS FOR THE DIETARY OF CHILDREN FROM 1½ TO 2½ YEARS OF AGE.

The schedule of feeding may be arranged in various ways according to when the child takes his "midday nap." If at 10:30 or 11 o'clock, the meals should come as follows:

On waking, warm milk or milk and cracker; at 9 o'clock fruit juice, 3 or 4 tablespoonsful, diluted with 2 tablespoonsful of water. Breakfast, 10 a.m.; dinner 1:30 or 2 p.m.; supper 5:30 to 6 p.m.

When the child is older and takes his nap after lunch the schedule should be: Breakfast at 7 or 7:30; fruit juice at 10 with bread or cracker if required; dinner at 12, milk at 4 and supper at 6.

It is not necessary to hold a child to these exact quantities of any food, but wide variations should always be reported and sometimes even small differences are important in children that are not in perfect health.

A child who weighs considerably more or less than the amount indicated on the dietary would naturally require more or less food than that given.

All new foods should be given in small quantities at first and not repeated for 2 days. *Two new foods* should not be given at one meal.

*Vegetables* and *cereals* should be cooked until very soft. Coarse cereal should be strained and all vegetables and fruits mashed and pressed through a sieve.

*Meats* should be broiled or roasted and scraped or cut very fine.

*Butter* should be used very sparingly and only if it digests well.

*Bread* should be light, dry and sweet (not sour). It is better to use whole wheat flour than white or graham flour if there is no intestinal irritation present.

Don't give *sour fruits*, as oranges or grapefruit juice, strawberries or cooked apricots at a meal that contains milk. Give them between meals.

The following abbreviations have been used:

*Tbs.* means a tablespoonful and is measured by *mashing* the food well into the spoon and then smoothing it off level with the edges.

*Tsp.* means teaspoon, measured as above.

*Slice* means an average medium slice; bread is supposed to weigh about an ounce if cut thick or medium and  $\frac{3}{4}$  oz. or less if thin.

*Oz.* means ounce. 16 oz. make 1 lb. Therefore 4 oz. of hamburger would be just one-quarter of a lb.; 2 oz. would be one-eighth, etc.

*A. H.* means average helping; as a small saucer of stewed fruit, vegetable or pudding, such as is usually served for a side dish in a hotel or at a family table. *S. H.* would mean less than the above and *L. H.* would mean more.

*A cup* is supposed to hold  $\frac{1}{2}$  pint when filled to the brim, but when filled conveniently for serving means 7 oz.  $\frac{1}{2}$  means 4 oz.

N. B. These quantities are for cooked foods edible portion.

## FROM 2½ TO 5 YEARS OF AGE.

The changes in food should be made gradually as children develop from one stage to another.

Fruits and vegetables should be put through a sieve or fine strainer until the child is 2 or 3 years of age, depending upon its general vigor and digestive capacity. Many children thrive better on this finely divided food until the age of 5 or 6 years. When it is no longer necessary to "sieve" or "puree" the vegetables, they should be well mashed with a fork and not presented in *pieces* until the age of 4 or 5 years.

The "afternoon" feeding (4 o'clock) need not always be milk. Fruit or fruit juice and cracker or junket may be used but nothing should be given if it interferes with the appetite for supper. No candy or sweets should be given between meals, and only a little at the meals. If the child desires cereal more frequently than is prescribed, it may be given.

Only *soft* fats should be used in cooking and these very sparingly. Cream, butter, oil, bacon fat, etc., are the most easily digested.

Don't give the following foods: pastry, rich gravy, fried or fatty foods, nuts, salads, raw or coarse vegetables as cabbage, corn, sprouts, or lima beans; sausage or salt meats; pulp of orange or grapefruit, cherries, raw bananas, pineapple.

# DIETARY FOR A CHILD OF EIGHTEEN MONTHS TO TWO YEARS.

Weight 26 Pounds.

Approximate food value: Protein, 35 gms.; fat, 40 gms.; calories, 1,000.

	Breakfast	Dinner	Supper
Sunday	Zwieback ..... 1 piece Warm milk ..... 1 cup Thin cream ..... 2 tbs. Dried bread ..... ½ slice Warm milk ..... 1 cup	Baked potato ..... 2 tbs. Beef juice ..... 3 tbs. Pulp of carrot ..... 2 tbs. Toast, thin ..... 1 slice Custard ..... 3 tbs. A little water.	Cereal ..... 3 tbs. Thin cream ..... 2 tbs. Bread ..... ½ slice Butter ..... ½ tsp. Warm milk ..... 1 cup
Monday	Wheat hearts ..... 3 tbs. Thin cream ..... 2 tbs. Dried bread ..... 1 slice Jelly or butter ..... ½ tsp. Warm milk ..... 1 cup	Coddled egg ..... 1 On zwieback ..... 1 piece Dry toast ..... 1 slice Butter ..... ½ tsp. Prune pulp or apple sauce ..... 2 tbs. A little water.	Milk toast ..... 1 slice Asparagus tips ..... 2 tbs. (mashed, on milk toast) Warm milk ..... 1 cup Cracker ..... 1
Tuesday	Graham mush ..... 3 tbs. (strained) Thin cream ..... 2 tbs. Toast ..... 1 slice Butter ..... ½ tsp. Warm milk ..... 1 cup	Beef broth ..... ½ cup (with farina) Scraped meat ..... 1 tbs. Cauliflower tips ..... 2 tbs. (or spinach) Bread, thin ..... 1 slice A little water.	Bread ..... 1 slice Cooked in milk ..... ½ cup Cracker ..... 1 Apple sauce, with beaten white of egg, baked 3 minutes, 4-5 tbs.
Wednesday	Milk toast ..... 1 slice Dry toast ..... ½ slice Butter ..... ½ tsp. Warm milk ..... 1 cup	Milk and spinach soup, strained ..... ½ cup (or peas or carrots) Soft boiled egg ..... 1 Baked potato ..... 2 tbs. Sweet cracker ..... 1 Butter ..... ½ tsp.	Cereal ..... 3 tbs. (or gruel) Thin cream ..... 2 tbs. Warm milk ..... 1 cup Dried bread ..... 1 slice Apple jelly ..... 1 tsp.
Thursday	Germea ..... 3 tbs. Thin cream ..... 2 tbs. Graham crackers ..... 2 Butter ..... 1 tsp. Warm milk ..... 1 cup	Beef broth ..... ½ cup (with mashed carrots or asparagus tips) Scraped meat ..... 1 tbs. Potato ..... 2 tbs. Peach or prune pulp, 3 tbs. A little water.	Warm milk ..... 1 cup Zwieback ..... 2 pes. Cookie ..... 1
Friday	Rolled oats ..... 3 tbs. Thin cream ..... 2 tbs. Dried bread ..... 1 slice Jelly ..... 1 tsp. Warm milk ..... 1 cup	Boiled rice ..... 2 tbs. Beef juice ..... 3 tbs. Pulp of string beans or cauliflower tips, 2 tbs. Dried bread ..... ½ slice Junket ..... 3 tbs. A little water.	Warm milk ..... 1 cup Cracker ..... 1 Butter ..... ½ tsp. Arrowroot, cooked in milk with beaten white of egg and sugar added ..... 5 tbs.
Saturday	Saturday may repeat Wednesday or any preferred day.		

The above meals are given at 10 a.m., 2 p.m. and 6 p.m. Besides these, baby is to have two others. On waking, about 7 a.m., a cup of warm milk; at 9 o'clock 1 table-spoon of fruit juice diluted with two tablespoons of water.



# DIETARY FOR A CHILD OF TWO TO THREE YEARS.

Weight 30 Pounds.

Approximate food value: Protein, 38 gms.; fat, 42 gms.; calories, 1,100.

	Breakfast	Dinner	Supper
Sunday	Rolled oats ..... 3 tbs. Thin cream ..... 2 tbs. Sugar ..... 1 tsp. Bread ..... 1 slice Butter ..... 1 tsp. Milk ..... 1 cup	Milk and spinach soup, strained ..... $\frac{1}{2}$ cup (or carrot or pea) Soft cooked egg ..... 1 Baked potato ..... 3 tbs. Bread, thin ..... 1 slice Syrup or honey ..... 1 tsp. A little water.	Milk toast ..... 1 slice Dry toast ..... $\frac{1}{2}$ slice Warm milk ..... 1 cup Butter ..... $\frac{1}{2}$ tsp. Cookie ..... 1
Monday	Coddled egg ..... 1 Dried bread, thin ..... 2 slices Butter ..... 1 tsp. Milk ..... 1 cup (warm)	Beef broth with farina ..... $\frac{1}{2}$ cup Lamb chop, small ..... 1 Mashed carrots or asparagus tips ..... 2 tbs. Potato, mashed ..... 2 tbs. Cracker ..... 1 A little water.	Boiled rice ..... 4 tbs. (finished in milk or noodles) Thin cream ..... 2 tbs. Milk ..... 1 cup Toast ..... 1 slice Jelly ..... 1 tsp.
Tuesday	Cream of wheat ..... 3 tbs. Thin cream ..... 2 tbs. Sugar ..... 1 tsp. Zwieback ..... 1 piece Milk, warm ..... 1 cup	Soft egg ..... 1 Milk toast ..... 1 slice Dry toast ..... $\frac{1}{2}$ slice Butter ..... 1 tsp. Prune pulp ..... 2 tbs. A little water.	Milk and cauliflower soup, strained ..... $\frac{1}{2}$ cup Crackers ..... 2 Butter ..... 1 tsp. Milk ..... $\frac{1}{2}$ cup Rice pudding ..... 3 tbs. (or bread pudding)
Wednesday	Poached egg ..... 1 Dipped toast ..... 1 slice Dry toast ..... $\frac{1}{2}$ slice Butter ..... $\frac{1}{2}$ tsp. Milk ..... 1 cup	Beef broth ..... $\frac{1}{2}$ cup Scraped beef ..... 1-1 $\frac{1}{2}$ tbs. Baked potato ..... 2 tbs. Spinach, strained ..... 3 tbs. Zwieback ..... 1 piece Water, if desired.	Farina ..... 3 tbs. (finished in milk) Thin cream ..... 2 tbs. Toast ..... 1 slice Jelly ..... 1 tsp. Warm milk ..... 1 cup
Thursday	Wheat hearts ..... 3 tbs. Thin cream ..... 2 tbs. Bread ..... 1 slice Butter ..... $\frac{1}{2}$ tsp. Milk ..... 1 cup	Soft omelet ..... 1 egg Peas, strained ..... 2-3 tbs. (or string beans) Bread ..... 1 slice Fruit tapioca ..... 3 tbs. (or fruit gelatin or fruit whip)	Milk toast ..... 1 slice Milk ..... 1 cup Cracker ..... 1 Butter ..... $\frac{1}{2}$ tsp.
Friday	Scrambled egg ..... 1 Dried bread, thin ..... 2 slices Jelly ..... 2 tsp. Warm milk ..... 1 cup	Boiled white fish ..... 2 tbs. Mashed potato ..... 2 tbs. Mashed carrots or squash ..... 2 or 3 tbs. Bread, thin ..... 1 slice Butter ..... $\frac{1}{2}$ tsp.	Milk and spinach soup ..... $\frac{1}{2}$ cup Triscuit ..... 1 or 2 Milk ..... 1 cup Molasses cookie ..... 1
Saturday	Graham mush ..... 3 tbs. (strained) Thin cream ..... 2 tbs. Sugar ..... 1 tsp. Zwieback ..... 1 piece Warm milk ..... 1 cup	Mutton broth ..... $\frac{1}{2}$ cup (with mashed vegetable) Broiled steak ..... 1-1 $\frac{1}{2}$ tbs. Mashed potato ..... 2 tbs. Apple sauce ..... 2 tbs. Cracker ..... 1	Bread, thin ..... 2 slices Warm milk ..... 1 cup Butter ..... 1 tsp. Junket ..... 3 tbs. (or custard)

Fruit juice once each day between meals and milk once between.











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